

**THE OFFICE OF REGULATORY STAFF  
SETTLEMENT TESTIMONY AND EXHIBITS  
OF  
MICHAEL L. SEAMAN-HUYNH**

**MAY 27, 2010**



**DOCKET NO. 2010-1-E**

**ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS  
OF CAROLINA POWER & LIGHT COMPANY  
d/b/a PROGRESS ENERGY CAROLINAS, INC.**

**SETTLEMENT TESTIMONY OF**

**MICHAEL L. SEAMAN-HUYNH**

**ON BEHALF OF**

**THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF**

**DOCKET NO. 2010-1-E**

**IN RE: ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS OF**

**CAROLINA POWER AND LIGHT COMPANY**

**d/b/a PROGRESS ENERGY CAROLINAS, INC.**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

**A.** My name is Michael Seaman-Huynh. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as an Electric Utilities Specialist in the Electric Department for the Office of Regulatory Staff ("ORS").

**Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

**A.** I received a Bachelor of Arts Degree in History from the University of South Carolina in Columbia in 1997. Prior to my employment with ORS, I was employed as an energy analyst with a private consulting firm. I joined ORS in June 2006. I have testified on several occasions before this Commission in conjunction with fuel clause proceedings.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

**A.** The purpose of my testimony is to set forth ORS Electric Department's findings and recommendations resulting from its review of Carolina Power & Light Company

d/b/a Progress Energy Carolinas, Inc.'s ("PEC" or "Company") fuel expenses and power plant operations used in the generation of electricity to meet the Company's retail customer requirements during the review period. The review period includes actual data for March 2009 through February 2010, estimated data for March 2010 through June 2010, and forecasted data for July 2010 through June 2011.

**Q. WHAT AREAS WERE ENCOMPASSED IN YOUR REVIEW OF THE COMPANY'S FUEL EXPENSES?**

A. ORS examined various fuel and performance related documents as part of its review. The information reviewed addressed various energy generation and power plant maintenance activities. In preparation for this proceeding, ORS analyzed the Company's monthly fuel reports including power plant performance data, unit outages and generation statistics. ORS evaluated nuclear fuel, coal, natural gas, and transportation contracts and the reagent related contracts for ammonia and limestone. ORS also evaluated the Company's policies and procedures for fuel procurement. All information was reviewed with reference to the Company's existing Adjustment for Fuel and Variable Environmental Costs Rider and the Fuel Clause statute.

**Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF THE COMPANY'S REQUEST IN THIS PROCEEDING?**

A. ORS met with Company personnel from various departments including Power System Operations, Regulated Fuels and Transportation, Natural Gas and Oil Procurement, Nuclear Fuel Supply, Nuclear Engineering, and Fuel Forecasting at the Company's headquarters in Raleigh, NC. Also, ORS reviewed documentation of natural gas purchases for operation of the Company's natural gas fueled generating facilities. In

1 addition ORS keeps abreast of the coal and natural gas industries including transportation  
2 through industry publications on a daily basis. During this review period, ORS also  
3 conducted an on-site visit of the Brunswick nuclear generation station.

4 **Q. DID ORS EXAMINE THE COMPANY'S PLANT OPERATIONS FOR THE**  
5 **REVIEW PERIOD?**

6 **A.** Yes. ORS reviewed the Company's performance of its generating facilities to  
7 determine if the Company made reasonable efforts to minimize fuel costs. ORS also  
8 reviewed the availability and capacity factors of the Company's power plants. Exhibit  
9 MSH-1 shows the monthly availability factors of the Company's major generating units  
10 stated in percentages. The corresponding capacity factors in Exhibit MSH-2 indicate the  
11 monthly utilization of each unit in producing power.

12 **Q. PLEASE EXPLAIN THE SIGNIFICANCE OF PLANT AVAILABILITY AND**  
13 **HOW IT IS USED IN YOUR EVALUATION AS REPRESENTED ON EXHIBIT**  
14 **MSH-1.**

15 **A.** Exhibits MSH-3 and MSH-4 show a summary of the Company's major fossil and  
16 nuclear units' outages for the review period, respectively. With reference to Exhibit  
17 MSH-1, months where generation units show zero availability as well as those months  
18 showing less than 100% availability led ORS to examine the reasons for such  
19 occurrences. Exhibits MSH-1 through MSH-4 should be used in concert to evaluate the  
20 Company's plant operations. As an example, Exhibit MSH-1 shows Brunswick Unit #2  
21 had zero availability in March 2009. Exhibit MSH-4 explains the reason for the zero  
22 availability during that time period. The Brunswick Unit #2 had a scheduled refueling

1 outage between February 28, 2009 and April 29, 2009; therefore, the unit was not  
2 available to generate electricity during this time period.

3 **Q. WOULD YOU EXPLAIN HOW THE OTHER OUTAGES ARE REPRESENTED**  
4 **ON EXHIBITS MSH-3 AND MSH-4?**

5 **A.** Yes. Exhibit MSH-3 provides explanations for major fossil unit outages of 100  
6 hours or greater. While not included in this Exhibit, all fossil outages of less than 100  
7 hours were also reviewed and found to be reasonable by ORS. Exhibit MSH-4 provides  
8 explanations for all nuclear plant outages during the review period.

9 **Q. PLEASE ADDRESS THE OUTAGES AT THE COMPANY'S THREE NUCLEAR**  
10 **STATIONS.**

11 **A.** Exhibit MSH-4 shows the duration, type, and cause of the outages at the  
12 Company's three nuclear stations. ORS found that the Company took appropriate  
13 corrective action with respect to these outages, and there were no Nuclear Regulatory  
14 Commission fines associated with these outages. The three nuclear stations, consisting of  
15 four units, achieved an overall 90.5% availability factor and 92.4% capacity factor for the  
16 review period which included scheduled refueling outages for three of the four units.

17 **Q. WHAT WERE THE RESULTS OF YOUR ANALYSIS OF THE COMPANY'S**  
18 **PLANT OPERATIONS FOR THE PERIOD UNDER REVIEW?**

19 **A.** ORS concluded from its review of the Company's operation of its generating  
20 facilities that the Company made reasonable efforts to maximize unit operations and  
21 minimize fuel costs.

22 **Q. DID ORS REVIEW THE GENERATION MIX UTILIZED BY THE COMPANY**  
23 **DURING THE REVIEW PERIOD?**

1     **A.**           Yes. Exhibit MSH-5 shows the megawatt-hour (“MWH”) generation mix for the  
2           review period by generation type. As shown in this exhibit, the Richmond County  
3           combined-cycle natural gas-fired units contributed higher percentage of generation  
4           throughout the period as compared to previous years. This can be attributed to the  
5           relatively low natural gas prices experienced throughout the review period. However,  
6           these units are a small percentage of the overall generation mix and the baseload fossil  
7           and nuclear units continue to supply the majority of the year-round generation  
8           requirements. Typically combustion turbine and combined-cycle units contribute a  
9           higher percentage of generation during the summer and winter peak months and a lower  
10          percentage of generation during the off-peak periods.

11    **Q.     DID ORS EXAMINE THE COMPANY’S FUEL COSTS ON A PLANT-BY-PLANT BASIS?**

13    **A.**           Yes. Exhibit MSH-6 shows the Company’s average fuel costs by generating plant  
14          on the Company’s system for the review period and the megawatt-hours produced by  
15          these plants. ORS’s review revealed the lowest average fuel cost of 0.527 cents per  
16          kilowatt-hour (“kWh”) at the Robinson Nuclear Station, and the highest average period  
17          fuel cost of 5.716 and 8.370 cents per kWh at the Richmond County combined-cycle and  
18          combustion turbine gas-fired units, respectively. The Company utilizes economic  
19          dispatch, which generally tends to dispatch or bring on-line the lowest cost units first.

20    **Q.     HAS ORS REVIEWED THE COMPANY’S HEDGING PRACTICES FOR NATURAL GAS?**

22    **A.**           Yes, ORS annually reviews the monthly gains and losses from PEC’s natural gas  
23          hedging programs.

1 **Q. DOES ORS HAVE ANY RECOMMENDED CHANGES TO THE COMPANY'S**  
2 **PROGRAMS?**

3 **A.** No, ORS does not recommend changing the Company's hedging programs at this  
4 time. However, with the changes in the natural gas market due to the influx of shale gas  
5 reserves, ORS recommends that the Company continue to examine its hedging programs.

6 **Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S FORECAST?**

7 **A.** Yes. As shown in Exhibit MSH-7, the Company's MWH actual sales compared  
8 to forecasted sales varied by 8.32% during the review period. In addition, Exhibit MSH-  
9 8 shows the monthly variance between projected and actual fuel cost factors. The  
10 Company's cumulative average projected fuel cost level for the period was 1.73% above  
11 the actual resulting cost level.

12 **Q. WHAT OTHER REVIEWS HAS ORS UTILIZED IN MAKING ITS**  
13 **DETERMINATIONS IN THIS PROCEEDING?**

14 **A.** Exhibit MSH-9 shows the actual ending balances of over and under- collections  
15 of fuel costs beginning December 1979. The Company has experienced over-recovery  
16 and under-recovery balances since December 1979. As of February 2010, the Company  
17 recorded a cumulative under-recovery of (\$3,413,120).

18 **Q. WHAT OTHER SOURCES DOES ORS USE IN DETERMINING THE**  
19 **REASONABLENESS OF THE COMPANY'S REQUEST?**

20 **A.** ORS routinely 1) reviews private and public industry publications as well as those  
21 available on the Energy Information Administration's ("EIA") website; 2) conducts  
22 meetings with Company personnel; 3) attends industry conferences; and 4) reviews fuel  
23 information as filed monthly by electric generating utilities with the Federal Government.



1 An example of EIA data reviewed is included on Exhibits MSH-10 and MSH-11.  
2 Exhibit MSH-10 provides spot coal price data for a three-year period and includes the  
3 most recent spike and drop in prices experienced in 2008 for both Northern and Central  
4 Appalachia. PEC generally obtains its coal from the Central Appalachia region. Exhibit  
5 MSH-11 provides uranium price data for the previous fifteen-year period and shows a  
6 significant increase in the price of uranium since 2006.

7 **Q. DO YOU SUPPORT THE SETTLEMENT AGREEMENT EXECUTED BY THE**  
8 **PARTIES IN THIS HEARING AND BELIEVE IT IS IN THE PUBLIC**  
9 **INTEREST?**

10 **A.** Yes, I do.

11 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

12 **A.** Yes, it does.



**Power Plant Performance Data Report**  
**Availability Factors (Percentage)**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

PLANT	UNIT	MW RATING	HISTORICAL DATA			REVIEW PERIOD (ACTUAL) DATA												Average Review Pd.
			YEAR 2007	YEAR 2008	YEAR 2009	MAR 2009	APR 2009	MAY 2009	JUN 2009	JUL 2009	AUG 2009	SEP 2009	OCT 2009	NOV 2009	DEC 2009	JAN 2010	FEB 2010	
BRUNSWICK	1 <sup>1</sup>	938	93.4	84.1	95.9	99.1	100.0	99.1	100.0	99.7	97.4	65.8	94.7	99.1	99.1	97.7	92.0	95.3
BRUNSWICK	2 <sup>2</sup>	920	86.4	95.0	78.0	0.0	2.2	87.9	91.2	100.0	99.2	67.0	94.9	99.3	100.0	97.0	80.6	76.6
HARRIS	1 <sup>3</sup>	900	93.1	97.1	91.6	98.9	52.8	64.9	100.0	100.0	100.0	99.8	100.0	82.8	100.0	99.1	100.0	91.5
ROBINSON	2	710	88.6	83.3	98.6	100.0	92.9	100.0	100.0	100.0	100.0	100.0	98.9	92.4	99.4	100.0	100.0	98.6
NUCLEAR TOT		3468	90.4	89.9	91.0	74.5	62.0	88.0	97.8	99.9	99.2	83.1	97.1	93.4	99.6	98.4	93.2	90.5
ASHEVILLE	1	191	80.7	87.0	96.7	99.9	100.0	88.7	99.9	100.0	98.9	99.4	83.3	100.0	92.1	92.4	96.5	95.9
ASHEVILLE	2	185	89.3	88.2	96.3	100.0	99.6	89.5	97.5	90.1	99.1	98.6	85.9	98.5	100.0	98.1	97.6	96.2
MAYO	1 <sup>4</sup>	742	91.3	95.3	88.3	18.5	55.4	99.5	94.4	98.8	99.8	100.0	99.3	93.8	100.0	100.0	100.0	88.3
ROXBORO	1	369	89.2	84.2	94.6	99.7	98.1	92.5	94.9	99.7	98.6	82.7	100.0	90.7	82.0	92.0	80.7	92.6
ROXBORO	2	662	85.6	91.4	86.2	77.3	91.5	84.1	94.5	83.3	81.9	87.8	96.6	56.1	98.8	90.5	99.4	86.8
ROXBORO	3	695	93.8	89.1	92.2	99.9	99.7	77.3	99.2	97.5	99.8	99.7	50.5	100.0	97.9	97.0	99.7	93.2
ROXBORO	4 <sup>5</sup>	698	84.5	96.0	93.6	99.9	56.0	90.1	99.2	96.1	96.9	99.4	95.5	100.0	97.8	98.3	99.6	94.1
FOSSIL TOTALS		3542	87.8	90.2	92.6	85.0	85.8	88.8	97.1	95.1	96.4	95.4	87.3	91.3	95.5	95.5	96.2	92.4
RICHMOND	7	154	89.4	91.5	84.9	93.6	27.2	98.4	81.4	80.2	100.0	98.0	55.9	99.9	84.8	99.1	100.0	84.9
RICHMOND	8	154	82.9	91.6	84.6	97.2	27.2	98.4	82.8	80.2	95.6	94.7	55.9	99.9	84.8	99.9	99.4	84.7
RICHMOND	9	171	96.2	93.6	85.2	95.3	27.2	98.5	82.8	80.2	99.4	100.0	55.9	99.9	84.7	100.0	100.0	85.3
CC TOTALS <sup>6</sup>		479	89.5	92.2	84.9	95.4	27.2	98.4	82.3	80.2	98.3	97.6	55.9	99.9	84.8	99.6	99.8	84.9

<sup>1</sup> Brunswick Unit 1: North Carolina Eastern Municipal Power Agency No. 1 (18.33%) and Progress Energy Carolinas (81.67%)

<sup>2</sup> Brunswick Unit 2: North Carolina Eastern Municipal Power Agency No. 1 (18.33%) and Progress Energy Carolinas (81.67%)

<sup>3</sup> Harris Unit 1: North Carolina Eastern Municipal Power Agency No. 1 (16.17%) and Progress Energy Carolinas (83.83%)

<sup>4</sup> Mayo Unit 1: North Carolina Eastern Municipal Power Agency No. 1 (16.17%) and Progress Energy Carolinas (83.83%)

<sup>5</sup> Roxboro Unit 4: North Carolina Eastern Municipal Power Agency No. 1 (12.94%) and Progress Energy Carolinas (87.06%)

<sup>6</sup> CC designates Combined-Cycle units

**Power Plant Performance Data Report**  
**Capacity Factors (Percentage)**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

HISTORICAL DATA							REVIEW PERIOD (ACTUAL) DATA												
PLANT	UNIT	MW RATING	LIFE <sup>1</sup> TIME	YEAR 2007	YEAR 2008	YEAR 2009	MAR 2009	APR 2009	MAY 2009	JUN 2009	JUL 2009	AUG 2009	SEP 2009	OCT 2009	NOV 2009	DEC 2009	JAN 2010	FEB 2010	Average Review Pd.
BRUNSWICK	1	938	71.1	95.9	85.2	97.6	101.4	102.4	100.9	100.6	100.0	97.3	65.9	96.5	101.7	101.8	96.1	87.1	96.0
BRUNSWICK	2	920	68.9	87.1	95.4	79.5	0.0	1.3	89.6	92.4	101.3	100.3	67.9	96.9	102.1	103.1	96.7	79.0	77.6
HARRIS	1	900	86.4	94.0	99.0	93.9	102.9	52.8	65.9	101.7	101.6	101.3	101.5	103.0	84.9	104.1	99.1	100.5	93.3
ROBINSON	2	710	76.4	92.3	87.1	104.1	107.4	98.6	105.1	103.0	102.9	102.7	103.8	104.7	98.4	107.0	100.7 0.0	100.8	102.9
NUCLEAR TOT		3468	75.7	87.8	92.3	91.9	76.1	62.0	89.7	99.2	101.4	100.3	83.4	100.0	96.8	103.8	98.0	91.2	92.4
ASHEVILLE	1	191	n/a	63.7	67.8	70.9	75.6	77.9	61.3	71.1	71.3	68.8	63.0	53.6	68.1	76.2	74.5	79.5	70.1
ASHEVILLE	2	185	n/a	73.2	64.9	59.4	68.7	58.1	53.8	60.2	56.3	58.9	50.9	41.6	51.2	74.2	73.2	74.6	60.1
MAYO	1	742	n/a	72.1	62.7	62.4	15.4	39.6	74.0	66.2	73.0	73.0	40.7	63.8	64.9	85.1	87.8	93.5	64.7
ROXBORO	1	369	n/a	78.1	69.8	79.4	90.5	88.3	76.4	76.0	83.8	84.2	55.0	79.5	69.7	74.2	85.4	77.6	78.4
ROXBORO	2	662	n/a	80.0	78.4	73.6	69.5	79.9	65.9	79.3	62.8	72.0	68.9	81.2	43.0	91.1	85.2	97.0	74.6
ROXBORO	3	695	n/a	74.4	66.0	62.8	72.0	69.1	50.5	68.2	66.1	66.7	58.9	28.5	53.0	71.4	77.4	82.5	63.7
ROXBORO	4	698	n/a	62.5	70.3	71.3	75.1	44.5	68.6	78.2	78.1	78.7	69.5	62.5	67.9	80.0	84.8	87.7	73.0
FOSSIL TOT		3166	n/a	59.1	63.7	61.1	50.5	51.0	57.3	64.3	62.0	64.1	52.2	52.0	50.8	72.3	74.1	79.7	70.9
RICHMOND	7	154	n/a	39.3	37.9	58.6	81.7	24.9	35.9	58.1	63.3	91.6	90.5	26.2	84.1	53.5	50.1	62.8	60.2
RICHMOND	8	154	n/a	31.6	40.7	55.8	80.0	18.4	31.2	50.3	57.4	82.8	86.3	29.2	81.7	56.0	51.8	61.4	57.2
RICHMOND	9	171	n/a	38.5	39.7	58.6	80.2	21.5	34.1	57.8	62.9	91.6	90.1	27.9	82.1	59.5	59.7	74.9	61.9
CC TOTALS <sup>2</sup>		479	n/a	20.5	36.6	39.5	80.6	21.6	33.8	55.5	61.3	88.8	89.0	27.8	82.6	56.5	54.1	66.7	59.8

<sup>1</sup>The lifetime nuclear unit capacity factors are through February 2010

<sup>2</sup>CC designates Combined-Cycle units

**Fossil Unit Outage Report  
(100 Hrs or Greater Duration)  
Progress Energy Carolinas, Inc.  
Docket No. 2010-1-E**

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Asheville 2	9/30/09	10/4/09	101.52	Forced	Unit was forced offline due to a boiler leak.
Mayo 1	3/6/09	4/12/09	892.28	Planned	Unit was taken offline for scheduled Spring Outage and to complete installation of scrubber.
Roxboro 1	9/18/09	9/23/09	118.70	Planned	Unit was taken offline for scheduled Fall Outage.
Roxboro 2	5/17/09	5/21/09	109.13	Planned	Unit was taken offline for scheduled Spring Outage.
Roxboro 2	8/12/09	8/16/09	100.50	Forced	Unit was forced offline due to a boiler leak.
Roxboro 2	10/30/09	11/11/09	266.78	Planned	Unit was taken offline for a boiler inspection.
Roxboro 3	05/10/09	5/16/09	152.83	Planned	Unit was taken offline for scheduled Spring Outage.
Roxboro 3	10/3/09	10/18/09	361.40	Planned	Unit was taken offline for a boiler inspection.
Roxboro 4	4/17/09	5/4/09	384.38	Planned	Unit was taken offline for scheduled Spring Outage.

**Nuclear Unit Outage Report**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

EXHIBIT MSH-4

UNIT	DATE OFF	DATE ON	HOURS	TYPE	EXPLANATION OF OUTAGE
Brunswick 1	9/20/2009	10/2/2009	266.20	Forced	Unit was forced offline due to the inoperability of Diesel Generator #4.
Brunswick 1	2/27/2010	4/27/2010 <sup>1</sup>	1419.00	Planned	Unit was taken offline due to scheduled refueling.
Brunswick 2	2/28/2009 <sup>2</sup>	4/29/2009	1452.70	Planned	Unit was taken offline due to scheduled refueling.
Brunswick 2	9/21/2009	10/1/2009	245.30	Forced	Unit was forced offline due to the inoperability of Diesel Generator #4.
Brunswick 2	1/10/2010	1/11/2010	7.52	Forced	Unit was forced offline due to a hydraulic fluid leak from a valve actuator.
Brunswick 2	2/3/2010	2/8/2010	112.38	Maintenance	Unit was taken offline to repair reactor coolant leakage and feedwater heater performance.
Harris 1	4/18/2009	5/10/2009	550.30	Planned	Unit was taken offline due to scheduled refueling.
Harris 1	11/15/2009	11/20/2009	117.63	Forced	Unit was forced offline due to loss of oil in Hydrogen Seal Oil skid filter.
Robinson 2	4/3/2009	4/5/2009	27.00	Forced	Unit was forced offline due to a high vibrations in the main turbine.
Robinson 2	11/06/09	11/08/09	45.13	Forced	Unit was forced offline due to Feedwater Regulating Valve Controller Failure.

<sup>1</sup> Brunswick 1 completed this outage after the review period.

<sup>2</sup> Brunswick 2 began this outage prior to the review period.

**MWH Generation Mix (March 2009 – February 2010)**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

<b>MONTH</b>	<b>PERCENTAGE</b>					
	<b>FOSSIL</b>	<b>NUCLEAR</b>	<b>COMBUSTION TURBINE</b>	<b>COMBINED CYCLE</b>	<b>HYDRO</b>	<b>PURCHASED POWER</b>
<b>2009</b>						
<b>March</b>	46.2	38.3	1.0	5.6	1.8	7.1
<b>April</b>	49.9	35.1	1.7	1.7	2.0	9.8
<b>May</b>	44.5	45.5	0.7	2.4	2.0	5.1
<b>June</b>	43.8	43.2	2.4	3.3	1.6	5.6
<b>July</b>	43.1	43.9	2.9	3.7	0.6	5.9
<b>August</b>	42.3	41.5	4.9	5.1	0.5	5.7
<b>September</b>	39.4	41.4	5.4	6.1	0.9	6.8
<b>October</b>	41.9	53.5	0.4	2.1	1.1	1.1
<b>November</b>	39.6	51.3	0.2	6.1	2.0	0.9
<b>December</b>	47.6	43.7	0.6	3.3	1.5	3.3
<b>2010</b>						
<b>January</b>	48.1	40.9	2.6	3.3	1.4	3.8
<b>February</b>	51.2	38.2	1.1	4.1	2.3	3.2
<b>Average</b>	<b>44.8</b>	<b>43.0</b>	<b>2.0</b>	<b>3.9</b>	<b>1.5</b>	<b>4.8</b>

**Generation Statistics for Plants  
(March 2009 – February 2010)  
Progress Energy Carolinas, Inc.  
Docket No. 2010-1-E**

<b>PLANT</b>	<b>TYPE FUEL</b>	<b>AVERAGE FUEL COST<sup>1</sup> (CENTS/KWH)</b>	<b>GENERATION (MWH)</b>
<b>Robinson 2</b>	Nuclear	0.527	6,472,367
<b>Brunswick</b>	Nuclear	0.568	11,631,789
<b>Harris</b>	Nuclear	0.592	6,209,167
<b>Asheville</b>	Coal	3.377	2,152,076
<b>Roxboro</b>	Coal	3.879	14,643,327
<b>Robinson 1</b>	Coal	4.042	989,858
<b>Mayo</b>	Coal	4.087	3,504,853
<b>Cape Fear</b>	Coal	4.094	1,811,127
<b>Lee</b>	Coal	4.683	2,053,158
<b>Sutton</b>	Coal	4.916	2,633,502
<b>Weatherspoon</b>	Coal	5.351	367,619
<b>Richmond Cty</b>	Gas CC/CT	5.716/8.370	2,550,511/816,105

<sup>1</sup>The average fuel costs for coal-fired plants include oil and/or gas cost for start-up and flame stabilization.

**SC Retail Comparison of Estimated to Actual Energy Sales**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

		2009										2010		
		MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	TOTAL
[1]	<b>ESTIMATED SALES [MWH]</b>	524,541	509,505	520,374	589,991	637,415	673,115	611,838	540,238	492,868	548,690	620,630	554,592	6,823,797
[2]	<b>ACTUAL SALES [MWH]</b>	514,268	450,243	446,254	532,982	594,209	604,234	521,514	495,064	465,378	501,209	617,292	557,044	6,299,691
[3]	<b>AMOUNT DIFFERENCE [1]-[2]</b>	10,273	59,262	74,120	57,009	43,206	68,881	90,324	45,175	27,490	47,481	3,339	-2,452	524,107
[4]	<b>PERCENT DIFFERENCE [3]/[2]</b>	2.00%	13.16%	16.61%	10.70%	7.27%	11.40%	17.32%	9.13%	5.91%	9.47%	0.54%	-0.44%	8.32%



**SC Retail Comparison of Estimated to Actual Fuel Cost**  
**Progress Energy Carolinas, Inc.**  
**Docket No. 2010-1-E**

	2009	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	2010	JAN	FEB	PERIOD AVERAGE
[1] ORIGINAL PROJECTION (¢/kWh)		3.047	2.570	2.909	3.126	3.475	3.228	2.689	2.582	2.630	2.840	2.808	2.808	2.774	2.890
[2] ACTUAL EXPERIENCE (¢/kWh)		2.983	2.930	2.977	3.052	2.986	3.135	2.638	2.443	2.622	3.225	3.248	3.248	3.051	2.941
[3] AMOUNT IN BASE (¢/kWh)		3.151	3.151	3.151	3.151	3.002	3.002	3.002	3.002	3.002	3.002	3.002	3.002	3.002	
[4] VARIANCE FROM ACTUAL [1-2]/[2]		2.15%	-12.29%	-2.28%	2.42%	16.38%	2.97%	1.93%	5.69%	0.31%	-11.94%	-13.55%	-13.55%	-9.08%	-1.73%

**History of Cumulative Recovery Account  
Report  
Progress Energy Carolinas, Inc.**

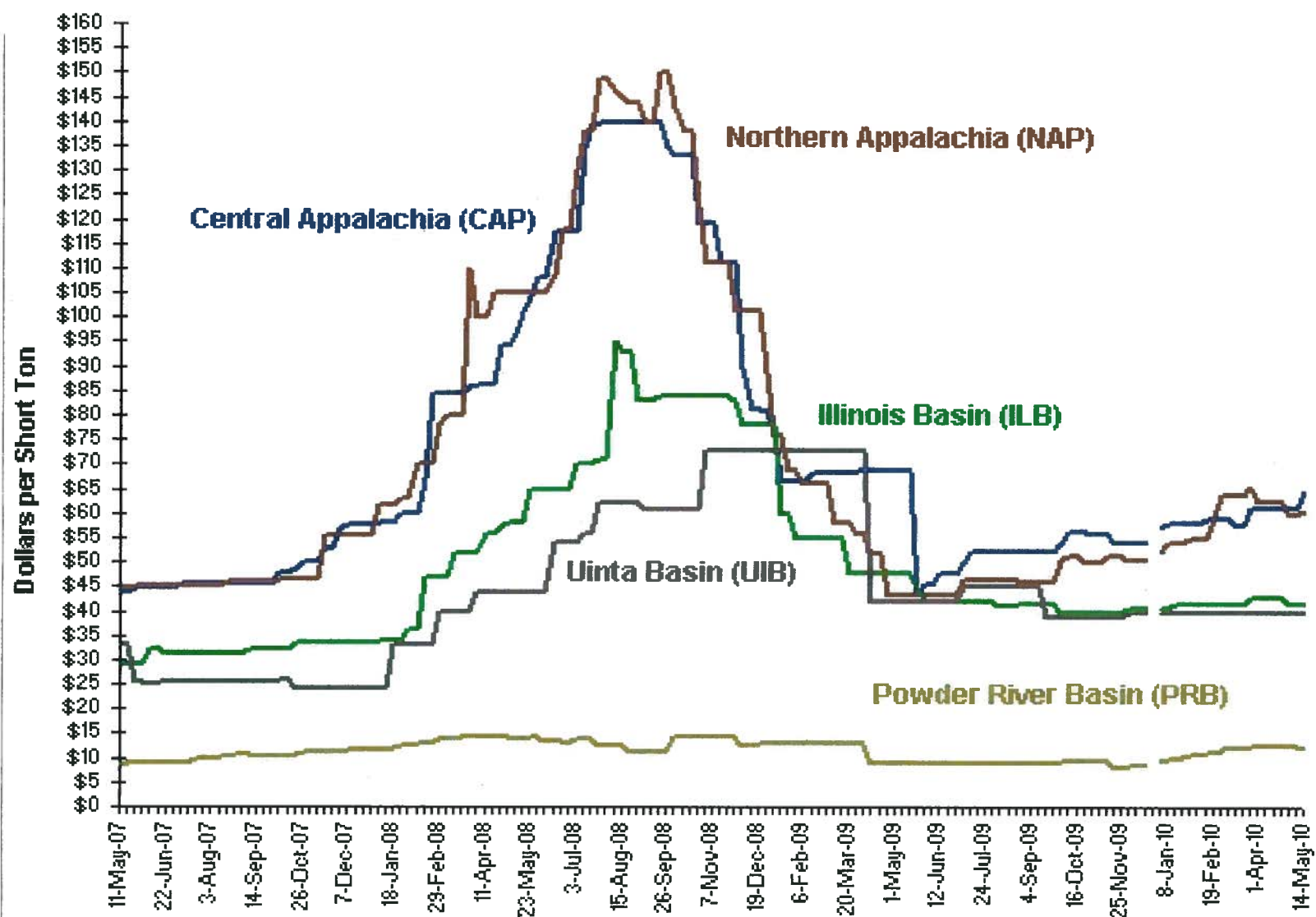
**EXHIBIT MSH-9**

<u>PERIOD ENDING</u>	<u>OVER (UNDER)\$</u>
December-79	\$ 1,104,730
September-80	\$ (12,000,131)
March-81	\$ (4,060,364)
August-81	\$ (12,113,832)
March-82	\$ (935,412)
September-82	\$ (6,881,796)
March-83	\$ (2,259,114)
September-83	\$ (3,264,694)
March-84	\$ 109,270
September-84	\$ 2,172,859
March-85	\$ (2,317,008)
September-85	\$ 745,913
March-86	\$ 1,972,280
September-86	\$ (696,805)
March-87	\$ 2,408,354
September-87	\$ 3,310,059
March-88	\$ (3,964,888)
September-88	\$ (5,737,541)
March-89	\$ (8,125,496)
September-89	\$ (5,875,641)
March-90	\$ (9,311,149)
September-90	\$ (658,614)
March-91	\$ 1,403,023
September-91	\$ 4,661,988
March-92	\$ 5,201,112
September-92	\$ (6,712,920)
March-93	\$ (9,563,180)
September-93	\$ - <sup>1</sup>
March-94	\$ (1,010,684)
September-94	\$ 1,975,939
March-95	\$ 7,408,161
September-95	\$ 2,011,489
December-96	\$ 186,139
December-97	\$ (6,212,396)
December-98	\$ (14,334,022)
December-99	\$ (17,967,157) <sup>2</sup>
December-00	\$ (18,627,471)
December-01	\$ (9,906,921)
December-02	\$ (7,393,266)
December-03	\$ (6,038,891)
March-05	\$ (27,537,237)
March-06	\$ (32,368,520)
March-07	\$ (22,834,137)
February-08	\$ (14,452,319)
February-09	\$ (9,966,147)
February-10	\$ (3,413,120)

Note 1: Eliminated \$14,011,263 per Commission Order No. 93-865

Note 2: Reduced by \$6,500,000 per Commission Order No. 1999-324

**EIA Average Weekly Coal Commodity Spot Prices  
Business Week Ended May 21, 2010**



**Key to Coal Commodities by Region**

Central Appalachia: Big Sandy/Kanawha 12,500 Btu, 1.2 lb SO<sub>2</sub>/mmBtu  
Northern Appalachia: Pittsburgh Seam 13,000 Btu, <3.0 lb SO<sub>2</sub>/mmBtu  
Illinois Basin: 11,800 Btu, 5.0 lb SO<sub>2</sub>/mmBtu

Powder River Basin: 8,800 Btu, 0.8 lb SO<sub>2</sub>/mmBtu  
Uinta Basin in Colo: 11,700 Btu, 0.8 lb SO<sub>2</sub>/mmBtu

EIA Weighted-Average Price of U.S. and Foreign-Origin Uranium Purchased by Owners and Operators of U.S. Civilian Nuclear Power Reactors, 1994-2008 Deliveries

